

**NEUTRON DETECTOR EMPLOYING DOPED PYROLYTIC BORON NITRIDE AND
METHOD OF MAKING THEREOF**

ABSTRACT OF THE INVENTION

The invention relates to a system for measuring a thermal neutron emission from a neutron source. The system employs a detector utilizing pBN neutron detector, wherein the pBN is doped with at least one dopant for an electrical resistivity of 10^4 ohm-cm or less.